

Attorney Docket No. SIC-00-001-4

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of:

KENJI OSE

Application No.: 09/992,597

Filed: November 14, 2001

For: SWITCH STYLE BICYCLE SHIFT  
CONTROL DEVICE

Examiner: Chong Hwa Kim

Art Unit: 3682

RESPONSE TO ORDERS  
FOR ADDITIONAL BRIEFING  
(37 CFR §41.50(d))

Mail Stop Appeal Brief-Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Commissioner:

This is a response to the orders dated February 28, 2007 and March 8, 2007.

Both orders requested clarification of the interpretation of the clause “wherein the finger contact projection protrudes radially inwardly from a radially innermost outer peripheral surface of the dial” recited in the claims. Pursuant to *In re Zletz*, 893 F.2d 319, 13 USPQ2d 1320 (Fed.Cir. 1989), the following designates the proper interpretation of that clause.

The term “peripheral” has the plain meaning of “related to, located in, or constituting an outer boundary.” The term “outer” modifies “peripheral” to further limit the subset of potential “outer boundaries” to eliminate surfaces such as the outer surface of pivot shaft (576) in Fig. 13 of Appellant’s specification. In other words, the outer peripheral surface must be a true outer boundary of the dial. The outer peripheral surface also must accommodate the adjectival phrase “radially innermost.” The term “radial” has the plain meaning of “radiating from or converging to a common center.” Given the nature of a dial, a cylindrical coordinate system is the clear choice for determining the radially innermost outer peripheral surface once the overall outer peripheral surface is

determined. The radius in such a coordinate system radiates from the rotational axis (A) in Appellant's device, from the rotational axis defined by the center of shaft (7) in the Higuchi device, and from the rotational axis defined by the center of bolt (34) in the Wechsler device.

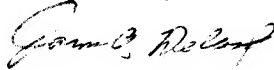
The outer peripheral surface of Appellant's rotatable dial (570) is marked in bold outline in the attached Exhibit A, the outer peripheral surface of Higuchi's wire winding element (9) (interpreted by the examiner to be a dial) is marked in bold outline in the attached Exhibit B, and the outer peripheral surface of Wechsler's dial (22) is marked in bold outline in the attached Exhibit C. Since Appellant's outer peripheral surface is circular, the radially innermost outer peripheral surface is coextensive with the outer peripheral surface. The same is true for Higuchi's wire winding element (9), except for the small rectangular structure at the right side of the wire winding element (9) shown in Higuchi's Fig. 4. Because of the circumferentially undulating outer peripheral surface created by the radially outwardly extending knobs (32) in the Wechsler device (column 4, lines 32-34), the radially innermost outer peripheral surface consists of the plurality of valley bottoms between the knobs (32). If the valleys between knobs (32) were not uniform in radial depth, then the radially innermost outer peripheral surface would consist of whatever portions of the outer peripheral surface were radially innermost. In a truly non-uniform design, most likely there would be only one valley bottom defining the radially innermost outer peripheral surface.

The above-quoted clause also requires the finger contact projection to protrude radially inwardly from the "radially innermost outer peripheral surface." This feature requires a finger contact projection that not only extends from the rotatable dial in a direction of the rotational axis as recited at lines 11-12 of claim 34, but also extends radially away from the outer peripheral surface and has at least a portion that is located a distance from the rotational axis that is less than the length of the radius (R) (labeled in the exhibits) that extends from the rotational axis to the radially innermost outer peripheral surface(s). With this interpretation, the finger contact projection does *not* have to be located along the straight-line path(s) from the rotational axis to the radially innermost outer peripheral surface(s). A portion of the finger contact projection only has to be located at the proper distance (less than the length of radius (R)) from the rotational axis. It is believed that Figs. 13-15 provide support for the claim language as so interpreted, since the finger contact projection

(584) protrudes radially inwardly from a radially innermost outer peripheral surface of the dial shown by the bold outline in Exhibit A.

As noted in Appellant's brief, neither Higuchi nor Wechsler disclose or suggest a finger contact projection that protrudes radially inwardly from a radially innermost outer peripheral surface of a dial.

Respectfully submitted,



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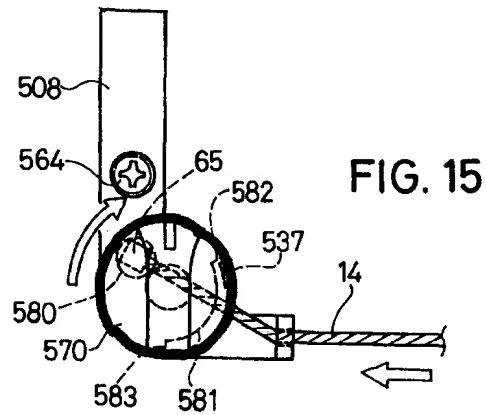
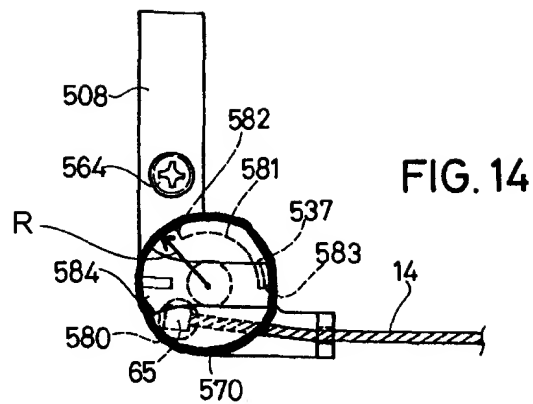


EXHIBIT A

Fig. 4

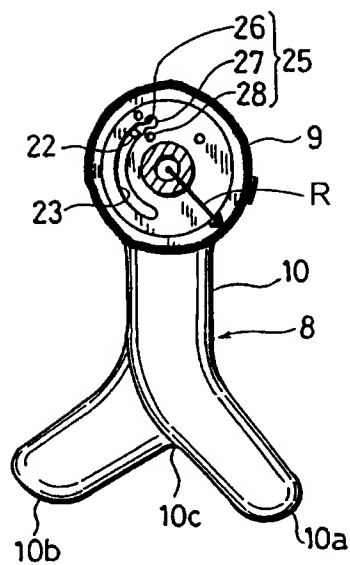


Fig. 5

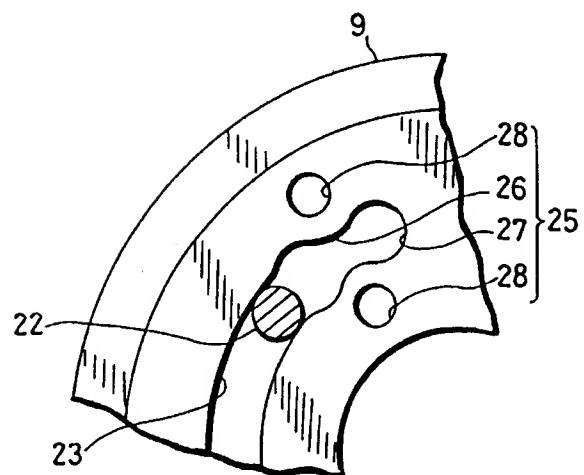


EXHIBIT B

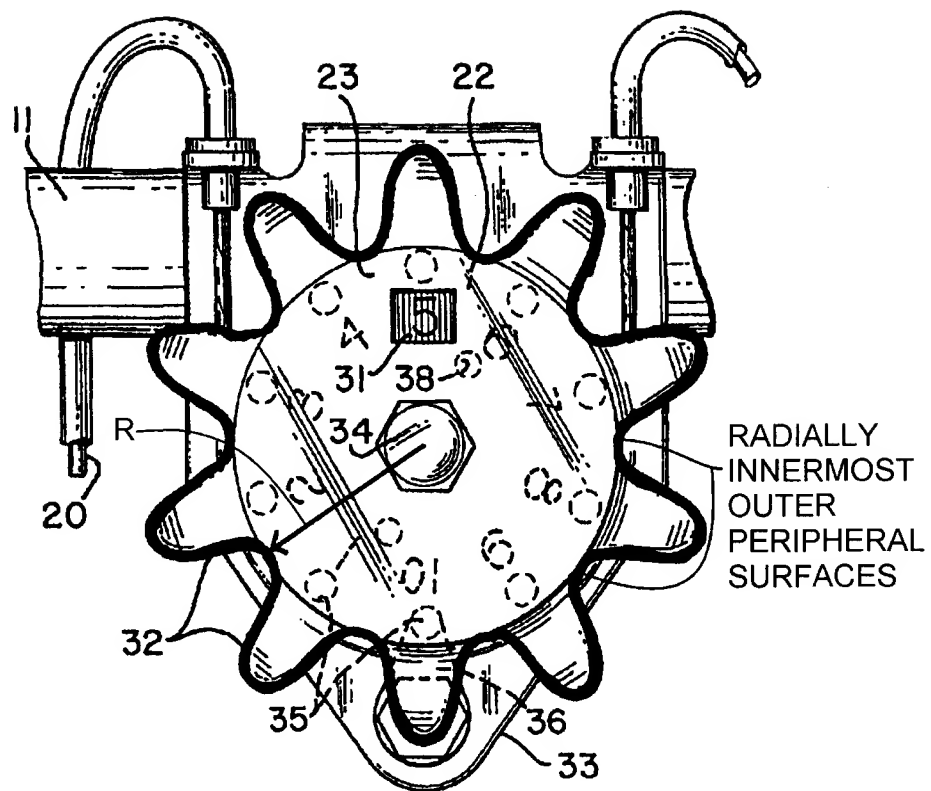


FIG.3

EXHIBIT C